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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/658,734

09/09/2003

Ed H. Frank

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EXAMINER

WIN, AUNG T

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/658,734	<b>Applicant(s)</b> FRANK ET AL.	
	<b>Examiner</b> AUNG T. WIN	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 & 24-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Office action mailed on 11/16/2007 has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as stated below.

Claims 9-16 recites the limitations “a machine-readable storage, having stored thereon a computer program .....”. It appears to examiner that the claimed limitation “a machine-readable storage” is referring to “**A tangible computer readable recording medium**”. Therefore, the recited limitations “a machine-readable storage, having stored thereon a computer program” is considered as “**A tangible computer readable recording medium for storing a computer program being executed by computer**”.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4, 6, 9-12, 14, 17-20, & 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US20040039817A1)

1.1 Regarding Claim 1, Lee discloses **a method for providing load balancing in a hybrid wired/wireless local area network** [hybrid wired/wireless local area network: 0004] [a method

for providing load balancing by selecting access point based on QBSS\_load value: 0038, 0039, 0045-0059], **the method comprising:**

**receiving at least one polling message from an access device by at least one of a plurality of access points** [receiving probe request message from transmitting wireless station operating in active scanning mode: 0035-0037];

**responsive to said at least one polling message, determining a load on each one of said plurality of access points; and sending said determined load of said each one of said plurality of access points to said access device** [each of transmitting AP sends probe response message contains information about each AP's determined QBSS\_Load value: 0037-0038].

1.2 Claim 9 is rejected for the same reason as stated above in Claim 1 rejection because claim 9 discloses tangible computer readable recording medium storing computer program to execute the processing method substantially close to corresponding method of claim 1. It would have been obvious to one of ordinary skilled in the art that Lee's method would teach computer readable recording medium as claimed because Lee's method is computer based method.

1.3 Regarding Claim 17, **Lee discloses a system for providing network management in a hybrid wired/wireless local area network** [hybrid wired/wireless local area network: 0004] [a system and method for providing load balancing by selecting access point based on QBSS\_load value: 0038, 0039, 0045-0059], **the system comprising:**

**at least one receiver of at least one of a plurality of access points, adapted to receive at least one polling message from an access device;** [Access point receiver configured to receive probe request message from an transmitting wireless station operating in active scanning mode: 0035-0037]

**at least one controller adapted to determine a load on each one of said plurality of access points in response to said at least one polling message; and**  
**at least one transmitter adapted to send said determined load of said each one of said plurality of access points to said access device** [each of transmitting AP sends probe response message contains information about each AP's determined QBSS\_Load value via AP transmitter in which QBSS\_Load value is determined by AP processor: 0037-0038].

1.4 Claim 2, 18 & 10 are rejected for the same reason as stated above in Claims 1, 9 & 17 rejections because Lee discloses the method according to claims 1, 9 & 17, comprising access points, which must be in operating range of transmitting wireless station as claimed in order to receive probe request message according to 802.11 specifications.

1.5 Claim 3, 4, 11, 12, 19 & 20 are rejected for the same reason as stated above in Claims 1, 9 & 17 rejections because Lee discloses the method according to claims 2, 10 & 18, comprising selecting an access point from said plurality of access points having a least load [wireless station selects the AP having the lowest QBSS\_Load number: 0055].

1.6 Claim 6 & 14 are rejected for the same reason as stated above in Claims 2 & 10

rejections. Lee discloses the method according to claim 2 & 10, comprising determining at least a load on at least a portion of said plurality of access points as claimed [determining QBSS\_Load value of access points within transmitting wireless station: 0037-0038] [see claim 1 rejection].

1.7 Claim 26 is rejected for the same reason as stated above in Claim 17 rejection. The AP processor as stated above is one or more of: a bandwidth management controller, a quality of service controller, a load balancing controller, a session controller and a network management controller because Lee's system and method teaches balancing loads by roaming to another access point based on access point loads [0061-0063]

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. Claims 5, 13, 21 & 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US20040039817A1) in view of Kostic et al. (US20030134642A1).

2.1 Regarding Claims 5, 13, 21 & 22, Lee discloses the method according to claim 1, 11 & 17 as stated above but does not explicitly disclose sending said received at least one polling message from said at least one of a plurality of access points to a switch using a messaging protocol message; and receiving said at least one polling message by said switch.

Kostic et al. discloses centralized association/terminations communications controlled WLAN method and system in which a plurality of access points communicate with access point controller 600 (claimed switch for switching between access points) according to specified 802.11 standards.

Therefore, it would have been obvious to one of ordinary skilled in the art at the time of invention of made to modify the Lee's system and method to implement a switch as taught by Kostic et al. to modify as claimed in Claims 5, 13, 21 & 22 . One of ordinary skilled in the art at the time of invention of made to do this to achieve optimal load balancing in the overall network

by centrally control the communications between wireless stations and access points.

3. Claims 7, 8, 15, 16, 24 & 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US20040039817A1) in view of Rom (US006360264B1).

3.1 Regarding Claims 7, 15 & 24, Lee discloses the method according to claim 6, 14 & 17 as stated above but does not explicitly disclose sending information corresponding to said determined load to at least a portion of said plurality of access points using a messaging protocol message.

Rom discloses the WLAN method and system comprising sending information corresponding to said determined load to at least a portion of said plurality of access points using a messaging protocol message as claimed [access point send its load information to another access point when handoff is necessary: Column 4, Line 64-Column 5, Line 4 & Column 6, Line 55-Column 7, Line 4].

Therefore, it would have been obvious to one of ordinary skilled in the art at the time of invention of made to send load information to other access points as taught by Rom to modify as claimed. One of ordinary skilled in the art at the time of invention of made to do this to maintain connectivity in a wireless local area network.

3.2 Claims 8, 16 & 25 are rejected for the same reason as stated above in Claims 7, 15 & 24. It would have been obvious to one of ordinary skilled in the art that handing off to other access point is essentially redistributing a load on said at least a portion of said plurality of access points



as claimed.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AUNG T. WIN whose telephone number is (571)272-7549. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAFAEL PEREZ GUTIERREZ can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung T Win/  
Examiner, Art Unit 2617

/Rafael Pérez-Gutiérrez/

Supervisory Patent Examiner, Art Unit 2617